

Remarks in Support of Patentability

The claims rejected by the examiner had been amended to distinguish those claims over the prior art cited by the examiner in the course of rejecting the claims.

In rejecting the claims, the examiner begins by contending:

The patent issued to Tamaru et al., teaches forming fibers from a heat-meltable fluorine containing resin (Abstract). Suitable heat-meltable fluorine resins include tetrafluoroethyleneperfluoro (alkyl vinyl ether) copolymer (PFA)¹

Applicant does not dispute this one of the examiner's contentions. However, applicant submits that a careful reading of Tamaru, et al. reveals significant and most importantly unobvious differences between the teachings of Tamaru's and applicant's invention as defined by the various claims at issue.

The examiner contends as follows:

Tamaru et al., teaches crimped staple fibers having 1-15 crimps per 20 mm fiber length and a denier from 2-200²

Applicant respectfully submits that applicant's invention, as defined by claim 9 in its currently amended form provides for woven fabric comprised of filaments having a much higher density of crimps per unit fiber length than that taught by Tamaru. Tamaru's 1 to 15 crimps for every 20 mm of fiber length when converted to inches results in a range of crimps from 1 to 19 crimps per inch of fiber length. This is to be contrasted with applicant's invention which provides filaments having from 1 to 100 crimps per inch, namely about five times the crimp density of that disclosed by Tamaru, et al. Applicant respectfully submits there is no teaching in Tamaru of this kind of crimp density provided by applicant's invention and as claimed now in independent

¹ Last two sentences, p. 3, 24 February 2005 official action.

² First sentence, pg. 4, 24 February 2005 official action.

claim 9, 10, 12, 20, 21, 29, 30, 48, 49, 50, 51, 57 and 58. With Tamaru failing to provide any hint or suggestion of a fiber formed from such filaments having the high crimp density recited in applicant's independent claim as amended, applicant respectfully submits that this, without more, patentably distinguishes applicant's claims over the Tamaru, et al. reference.

Applicant further notes that applicant's claims recite a denier range from 0.5 to 300 whereas, as stated by the examiner and quoted above, Tamaru, et al. teaches a denier range from 2 to 200. Again, applicant's invention as defined by the claims embraces a broader range of denier than that provided by Tamaru. Accordingly, applicant respectfully submits that this to be a second basis on which applicant's claims are patentably distinguishable over Tamaru. In that regard, applicant respectfully notes that the 0.5 to 300 denier range for the individual filaments appears in applicant's currently amended independent claims 9, 10, 12, 13, 20, 21, 29, 30, 48, 49, 50, 51, 57 and 58.

The examiner then goes on to assert that Tamaru et al., teaches forming woven, knitted and non-woven fabrics as well as multi-layer felts, and webs.³ Applicant agrees with this reading of Tamaru by the examiner.

In example 1, Tamaru teaches a web having a unit weight of 150 g/m², which is equivalent to about 4.2 ounces per square yard. Applicant agrees.

The Examiner contents that Tamaru teaches "suitable methods for making non-woven fabrics include needle punching and thermal bonding". Applicant agrees.

With regard to the limitations pertaining to calendaring as set forth in claims 13 and 17, Tamaru et al., teaches a heating belt type pressing method, which inherently would produce a

³ Last two sentences, p. 3, 24 February 2005 official action.

smooth, textured or patterned surface depending on the type of pressing apparatus used. As regarding applicant's claims 13 and 17 and the calendaring as set forth therein, applicant respectfully submits that the examiner's characterization of Tamaru, et al. as teaching a heating belt-type pressing method, which inherently would produce a smooth, textured or patterned surface depending on the type of pressing apparatus used, is speculation on the part of examiner when a heating belt-type pressing method is used in connection with the fabrics defined by applicant's claims.

As amply demonstrated above, applicant's claims recite limitation on physical parameters which are much, much broader than those disclosed by the Tamaru reference on which the examiner bases his position. Since the physical parameters of applicant's invention are much, much broader than those of Tamaru, it does not necessarily follow that what works with Tamaru will necessarily work with applicant's yarn, fabric or fiber.

To state that a heat belt-type pressing method would inherently produce a smooth textured or patterned surface using applicant's fabric or fiber, depending on the type of pressing apparatus used, is unwarranted speculation on the part of the examiner. This being the case, applicant respectfully submits that the rejection of claims 13 and 17 made the examiner in the language set forth immediately above, is speculation. Applicant respectfully notes that there is no reference cited for the speculation by the examiner that Tamaru's heating belt-type pressing method, when applied to a fabric defined by applicant's claims, would necessarily produce the surface the examiner contends.

Respecting claims 16 and 17, the examiner has contended:

With regard to the limitations pertaining to controlling the air permeability and mean pore size set forth in claims 16 and 17, it is the position of the Examiner that since no specific permeability or pore size physical values are given the teaching

of needle-punching by Tamaru et al., inherently meets this limitation, since it is known in the art that needle punching effectively manipulates the porosity and permeability. Applicant agrees.

Applicant respectfully submits that with the amendments currently made to claims 16 and 17, the examiner's basis for rejecting claims 16 and 17 heretofore is no longer well-founded. The examiner will specifically note that specific permeability and pore size data are recited in claims 16 and 17. Applicant most respectfully notes that it can no longer be contended that Tamaru, et al. inherently meets these limitations. While it may be known in the art that needle punching effectively manipulates porosity and permeability, as the examiner had stated, the examiner has not cited a reference teaching the permeability and pore size results now recited in independent claims 16 and 17. Applicant respectfully submits that in the absence of any such reference, claims 16 and 17 are patentably unobvious in view of the art of record.

As respecting claims 18, 19, 20 and 21, all of which have been amended in view of Tamaru, et al., applicant respectfully notes that the official action is silent as regarding the portions of the Tamaru, et al. reference that the examiner contends renders obvious or anticipates applicant's claims 18 through 21. In light of that, applicant believes claims 18 through 21 should be deemed allowable.

Turning to the rejection of claims 29, 30, 49 and 51, the examiner has asserted:

With regard to the limitations pertaining to the specific Mullen burst strength and air permeability values set forth in claims 29, 30, 49, and 51 Tamaru et al., fails to explicitly teach the said property values. However, it is the position of the Examiner that said properties are inherent to the invention of Tamura et al. Support for said presumption is found in the use of like materials such as heat-meltable fluorine containing resin fibers and like processes such as needling and heat pressing, which would provide for the claimed Mullen burst strength and air permeability properties.

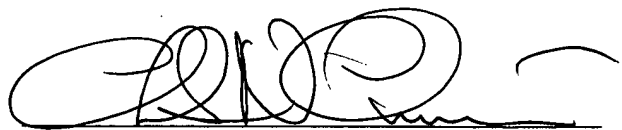
Applicant notes the examiner's position that the Mullen burst strength and air permeability values are allegedly inherent in the Tamaru, et al. invention. This may or may not be true; there is certainly no explicit recitation of Mullen burst strength and air permeability values (as currently claimed in applicant's independent claims 29, 30, 49 and 51) in the Tamaru, et al. reference. Applicant believes it is the examiner's burden to find a reference anticipating or rendering obvious the inventions defined by applicant's claims 29, 30, 49 and 51 in their currently amended form. In the absence of any such reference, those claims must be considered patentable. Notification of the same is respectfully solicited.

Applicant respectfully submits when the foregoing remarks are considered in view of the amendments to the claims set forth above, it should be clear that this application now contains claims which are clearly patentably distinguishable over the art of record. In light of that, applicant believes a notification of the allowability of all of the claims currently under consideration in the application is warranted; applicant most respectfully solicits the same.

To the extent there is any fee required in connection with the receipt, acceptance and/or consideration of this paper and/or any accompanying papers submitted herewith, please charge all such fees to Deposit Account 50-1943.

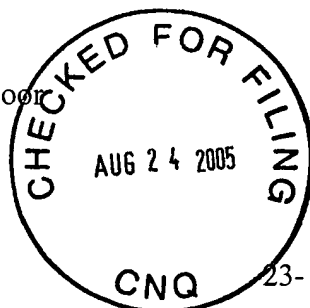
Respectfully submitted,

Date: 24 August 2005

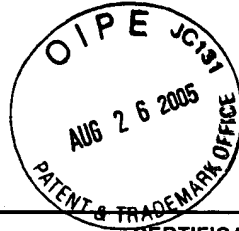


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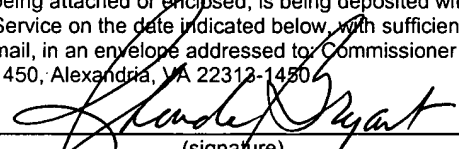
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BY: RHONDA BRYANT

DATE: AUGUST 24, 2005

